

Ferns of the Southeast*

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In this posthumous volume another splendid botanical manual is added to the already monumental works of the late Dr. Small. This, the third manual of his to be published in a series devoted to the Pteridophyta of the eastern United States, is like the others in that it is designed for use either by the amateur or advanced student.

When we consider how very prolific are the plant forms of Florida alone and multiply that fact by the very diversified area possibilities included in the geographical territory east of the Mississippi river and south of Virginia and Kentucky, it is not surprising to find 189 species and several sub-species of ferns and fern-allies described in this book. In this section of the country are many type provinces such as Coastal Plain, Piedmont, Blue Ridge, Appalachian Valley, Appalachian Plateaus and Interior Low Plateaus as well as the latitudinal zones of the temperate and sub-tropical regions. Of the large numbers of species described, 29 have never before been included in any fern manual and 12 are here described for the first time. What possibilities await the botanist and fern enthusiast in that peninsula of Florida where these new species have been found! It is of interest to note that over half of the species included in Dr. Small's "Ferns of the Vicinity of New York" are also found in these southern areas. In fact 36 of the plates are the same in both books but the text pertaining to these has been somewhat revamped. Except for a few of the quill worts, (*Isoetes*) each species is excellently illustrated in full page line drawings which emphasize the diagnostic characteristics of each. If the species are not too similar these line drawings will in many instances suffice for identification without having to refer to the very complete technical descriptions. For the uninitiated in the intricacies of genera characteristics, an illustrated key based on structure is given. Throughout this key are parenthetical explanations for technical terms used, such as sporangia, (spore-cases) or sori, ("fruit dots") which will save the student the trouble of referring to an index. This key would have been even more useful if the page reference to Order, Family and Genera had been given for each.

* Ferns of the Southeastern States—John Kunkel Small. The Science Press, 1938. 517 pp., \$3.50.

Other supplements include a lengthy glossary, a list of the "Authorities Cited in This Work," an excellent "Taxonomic List With Citations" by J. H. Barnhart, which might have been more usable if it had been alphabetically arranged, and about fifteen pages devoted to the cultivation of these south-eastern ferns.

As was rather characteristic of the author, there are a number of changes in nomenclature, mostly reverting to earlier classifications. Quoting from his introduction—"in this text an attempt has been made to interpret the fern-plants involved in more simple or natural generic concepts." He uses *Osmundopteris virginiana* (L) Small, for the Rattlesnake fern, instead of *Botrychium virginianum* Sw. For the Resurrection or Southern Polypody, *Polypodium polypodioides* Watl., he uses *Marginaria polypodioides* (L) Tidestrom and for *Selaginella Eatonii* he goes back to the old generic name of *Diplostachyum*. Common names are relegated to the end of the taxonomic descriptions and, usually, preference is given to the names that have been prevalently used for a long time.

Botanists may not always agree with Dr. Small's plant habit preferences as for example, when speaking of the habitat for *Thelypteris simulata* (Davenp) Nieuwl. (Massachusetts or Bog Fern) he states that it is found in "drier locations than are suited to the marsh fern," *Thelypteris Thelypteris* (L) Nieuwl. It may be able to survive in drier areas, but certainly the more healthy colonies prefer to have their "feet" in the water. Sphagnum bogs, partially grown over, seem to be the ideal location for this species.

However, these minor differences of opinion or disadvantages in arrangement are lost in the authoritativeness of the whole. This manual will no doubt be one of those "must have" additions to the library of botanists and fern enthusiasts.

An index to American ferns*

GEORGE T. HASTINGS

It is thirty-seven years since Maxon and Gilbert published lists of American ferns and thirty since Clute completed a check

* Index to North American Ferns. Maurice Broun. Published by the compiler at Orleans, Mass. 1938, 217 pages. \$2.50.